

Scheme A



FIG. 1

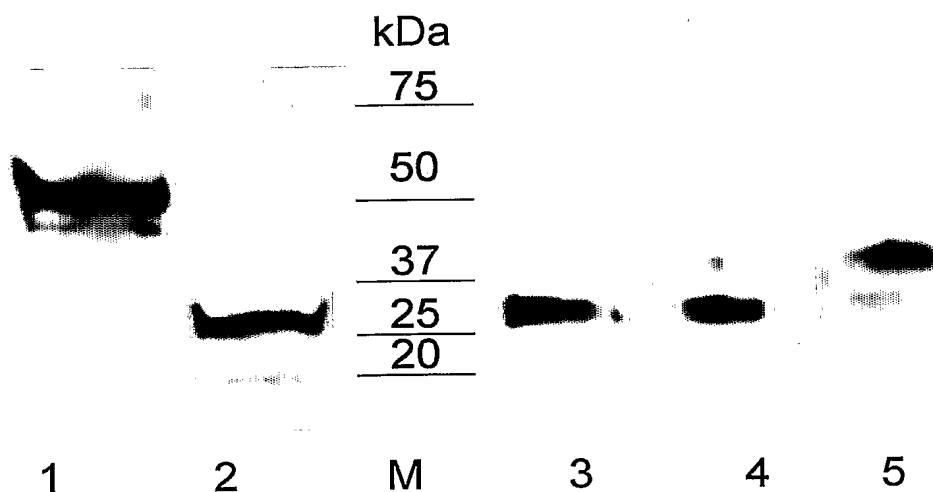
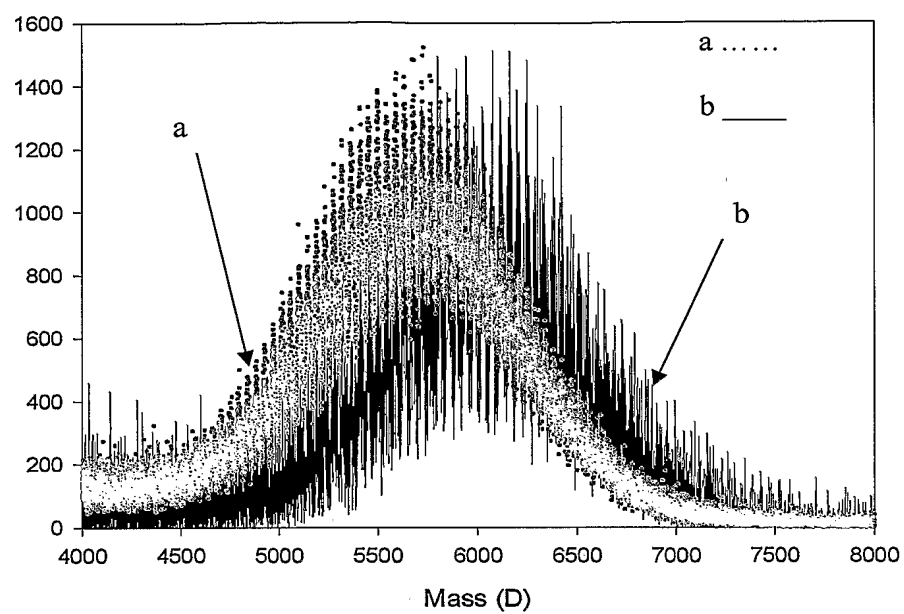
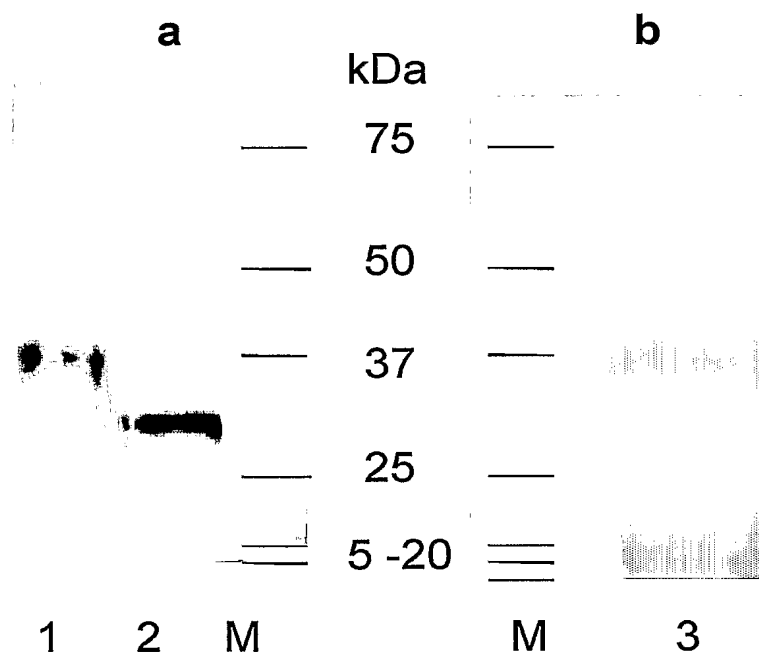
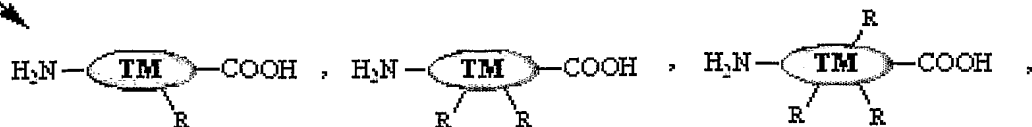


FIG. 2

**FIG. 3** (in color)**FIG. 4**

**Genetically Directed Synthesis
using non-natural amino-acid :**



TM analogs containing NNAA

TM: Thrombomodulin analog capable of activating protein C

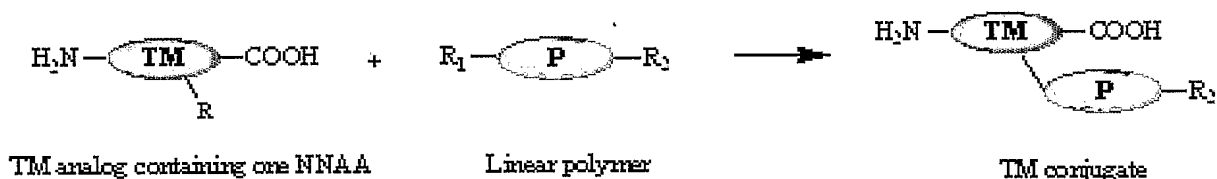
NH₂: Amino group at the N-terminal of TM

COOH: Carboxylic acid group C-terminal of TM


NNAA: Non-Natural Amino Acid

R: Functional group of the non-natural amino acid (N₃, alkyl, diene,)

Example of a Conjugation Reaction:



P: Linear or branched natural or synthetic polymers such as PEG, oligosaccharides, ...

R₁: Alkyne, diene, ,

R₂: - Functional group for anchoring onto surface: alkyne, diene, biotin,

- Anti-inflammatory/anti-thrombotic groups such as heparin, sialic acid Lewis X,

FIG. 5

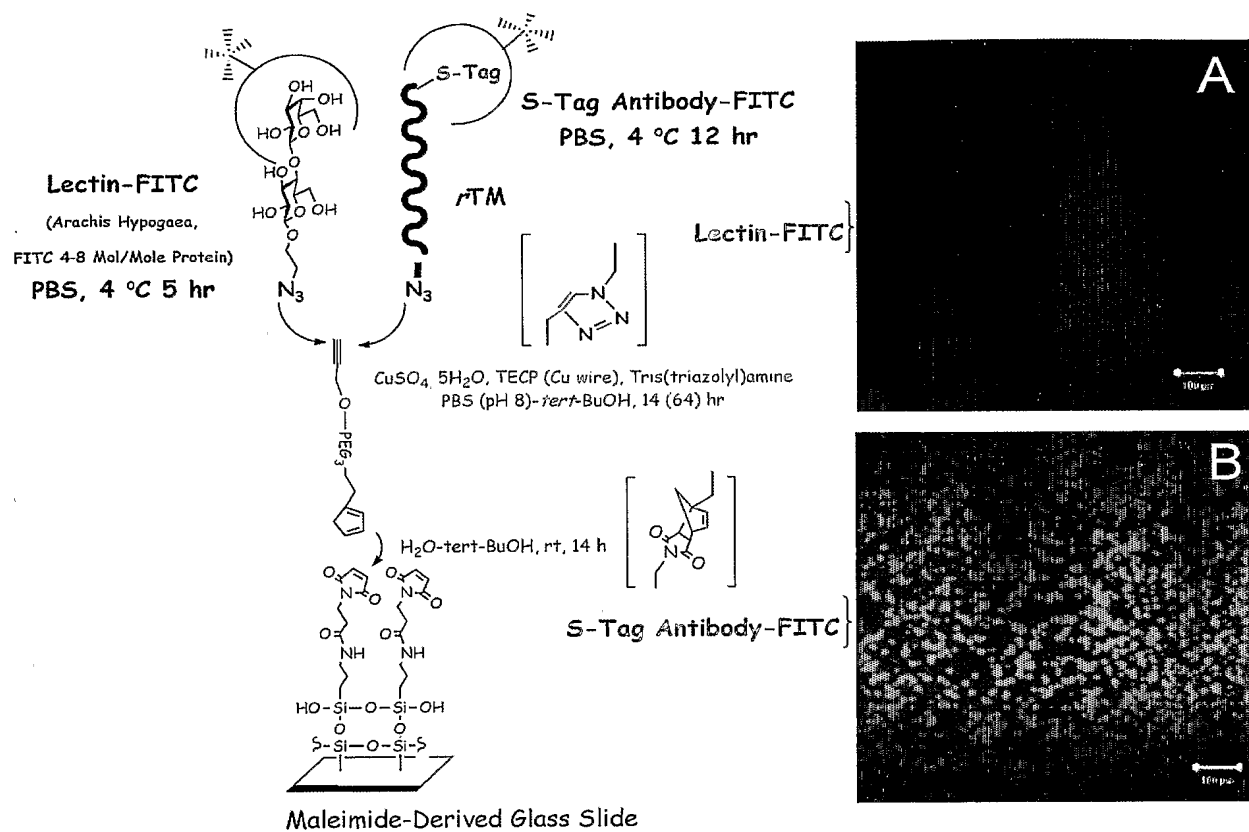


FIG. 6 (in color)